

The Institute of
Environmental and
Human Health

The Institute of Forensic Science



"On The Move" Newsletter

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Chairman's Note

Three ENTX Professors earn recognition at the Celebration of Faculty Excellence in Research, Scholarship and Creative Activity

Professors Seshadri Ramkumar, Ron Kendall and Steve Presley were recognized by TTU for achieving national and international recognitions in the 2017-18 academic year at an event on November 15th celebrating faculty excellence in research, scholarship and creative activity. President Lawrence Schovanec presented certificates to them recognizing their achievements.



Graduate Student Recruiting at the Graduate & Professional School Fair 2018

TIEHH Alumni, Students, Faculty and Staff at 2018 National SETAC in Sacramento, CA



The Graduate Program Coordinator, Analisa Guevara, recruited potential M.S. and Ph.D. students at the Graduate & Professional School Fair 2018 in Lubbock, TX, and also at the November SETAC conference in Sacramento, CA.



Fast Facts about IFS

Faculty



• **Dr. Robert Morgan, IFS Director**Research interests: Treatment and assessment of justice involved persons with mental illness, forensic mental health assessment, and professional development and training issues.



• Dr. Paola Prada, Research Assistant Professor and Director of Master's program in Forensic Science
Research interests: Evaluation of human odor volatiles as a forensic discriminatory tool as well as the testing of target odor analytes from various specimens of forensic importance for optimal performance of biological detector systems (i.e. canines).



• Dr. Kathy Sperry, Professor of Practice and Director of the Undergraduate Minor Program in Forensic Science Research interests: Stalking on college campuses, and the analysis of the causes and consequences of wrongful convictions and their impact on policy decisions.



• **Dr. Megan Thoen, Research Assistant Professor and Director of Forensic Mental Health Services**Research interests: Studying mental health and wellness of law enforcement members (e.g., police officers, correctional officers), disenfranchised groups (e.g., minority races and cultures, severely mentally ill) and their treatment within the criminal justice system (including case proceedings and case outcomes), and the management and care for the incarcerated mentally ill (particularly pre-trial incarceration).

Academic Programs

- Master of Science in Forensic Science
 Current enrollment: 15
 Concentration in Forensic Chemistry
 Concentration in Forensic Investigation
- Undergraduate minor in Forensic Science

Current enrollment: ~100 students

Student group

Forensic Science Society

Open to both TTU undergrad and graduate students, and alumni



Staff



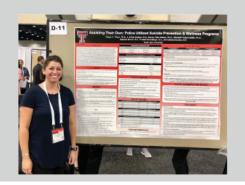
 Ms. Priscilla Reid, Training Coordinator



 Mr. Mark Hendley, Part-time business administrator

"Assisting their Own: Police Utilized Suicide Prevention & Wellness Programs."

Dr. Megan Thoen and her team were awarded Best Poster for Division 18 at the annual convention of the American Psychological Association in San Francisco, CA



Congrats to Dr. Thoen, Ethan Dodson (FSCI), Dr. Brandy Pina-Watson (Psychological Sciences), Dr. Elizabeth Trejos-Castillo (Human Development and Family Studies), Gabriela Manzo (Psychological Sciences), Preston McCullough (FSCI), and Esteisy Escalera (Psychological Sciences).



Fast Facts about IFS

Services Provided

Training: Coordinates training classes/seminars for law enforcement agencies, the judicial system, students, and other entities with forensic science needs.

Speaking services/tours: Representatives from IFS will speak to school classrooms about what it's like to work at IFS or to speak on specific topics. Tours of IFS facilities are also available for school groups and include demonstrations of some of the forensic equipment used, and a short presentation by IFS staff about their roles in the forensic science field.

Forensic mental health evaluations and consultation: Psycholegal services offered by IFS are provided by licensed psychologists and are available to the West Texas area. Services include Competency to Stand Trial assessments and other psycholegal evaluations. Arrangements for continuing education programs for judges, attorneys, and other entities are also available.





The Forensic Mental Health Assessment and Consultation Services

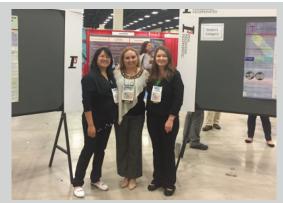
The Forensic Mental Health Assessment and Consultation Services were recently featured in the Fall 2018 newsletter of University Outreach and Engagement through the Office of the Provost. A vlog of this Engaged Scholarship in Action also was featured.





Fox News 34 recently featured the research and services of the Forensic Science Institute

The Forensic Science Institute offers training to supplement and complement those of law enforcement agencies; provides forensic mental health services, including court-ordered evaluations to determine whether individuals with mental illness are competent to stand trial; and houses a variety of research efforts intended to inform practice and enhance the use of forensic science in the legal and criminal justice sector.



Pictured: Thy Nguyen, Paola Prada, Amanda Patrick

TTU Institute of Forensics Lab gave 2 poster presentations at the 103rd International Association of Identification (IAI) Forensic Educational Conference

The IAI Conference is the largest in the world for Forensic and Crime Scene Professionals.

T. Nguyen, BS • Nathaniel Hall, PhD • A. Patrick, BS A. Soucey, BS • P.A. Paola Prada, PhD



Faculty News

Cotton for Oil Spill Remediation

Dr. Ramkumar suggests the use of cotton — pure, largely unprocessed cotton.

"The science is there — the resources are there,"
Dr. Ramkumar said in an interview, emphasizing that it's a realizable solution — though one that will require money.

"One gram of cotton can absorb 30 time its weight in liquid crude oil," Ramkumar found. Pure cotton can be integrated into a mat or a long boom, he said.

It eliminates the need to dump chemical dispersants into the sea, and natural cotton doesn't sink.

Indian Delegation Visits Advanced Cotton Laboratory at TIEHH

A five-member high level

delegation from the Cotton Corporation Of India under the Ministry of Textiles, India visited the Advanced Cotton Laboratory in the Department of Environmental Toxicology to learn about new developments in the cotton sector. The group conducted experiments with the cotton sorbent developed in the department. They also visited main campus, a gin and met with cotton producers.



Congratulations to Dr. Céline A. Godard-Codding for her article, Nanospray liquid chromatography/tandem mass spectrometry analysis of steroids from gray whale blubber, published in *Rapid Communications in Mass Spectrometry*, was one of the journal's top 20 most downloaded recent papers!





in Veterinary Science

Dr. Paola Prada has recently published in the Journal Frontiers in Veterinary Science.



The article entitled: "Birds and Dogs: Toward a Comparative Perspective on Odor Use and Detection".

.....This review serves as a call for the research community to consider a different perspective on birds as a viable and working system for comparative olfactory tasks as that observed with working dogs simply taking into consideration already existing life history olfactory traits.



After serving for the past 21 years, Dr. Todd Anderson stepped down as chair of the American Chemical Society (ACS) Environmental Chemistry

Division Awards Committee at the Fall meeting in Boston. The committee is responsible for administering the Division's awards program for graduate students.

Dr. Todd Anderson is the recipient of the 2018 Outstanding Regional Chapter Member Award from the Society of Environmental Toxicology and Chemistry (SETAC). This award is presented annually to a regional chapter member of SETAC who has been consistently contributing to the development or functioning of the Society at the Regional Chapter level. Dr. Anderson recently stepped down as Treasurer of the South Central Regional Chapter after serving for 17 years.



Faculty News



Promotions Congratulations to Dr. Ernest Smith and Dr. Jaclyn Cañas-Carrell for their successful promotion to Full Professor.





Big XII Faculty Fellowships for Academic Year 2018-2019

Congratulations to Dr. Kamaleshwar P. Singh for being awarded the Big XII Faculty Fellowship from the TTU Provost's office. Dr. Singh received this fellowship to visit O'Brien Kidney Research Center at UT Southwestern Medical Center, Dallas for developing on-site collaboration in the area of his ongoing research on environmental toxicants-induced kidney diseases.

Dr. Cañas-Carrell was selected to be a Faculty Fellow in the TTU Teaching, Learning, and Professional Development Center

She is working on STEM-focused initiatives and STEM faculty development.



Dr. Steve Presley delivered the American Mosquito Control Association's 2018 Memorial Lecture in Kansas City, MO

The presentation, "2018 AMCA Memorial Lecture Honoree: Fred William Knapp" has been published in the Journal of the American Mosquito Control Association, 34(3):169–176, 2018.

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Dr. Cañas-Carrell is the 2018-2019 Chair of the President's Gender Equity Council

The Council was established to advise the President of Texas Tech University on matters related to gender equity as well as to make recommendations to the President to ensure an equitable and inclusive environment for all members of the University community (http://www.depts.ttu.edu/genderequity/).

Dr. Cañas-Carrell received the 2018 National Society for the Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS) Outstanding College/University Mentor Award.



Student News

Yu-Wei Chang Received Prestigious Research Award



Yu-Wei Chang has received a prestigious award for her research into arsenic toxicology:
Ms. Chang worked in the Dept. of Environmental Toxicology with Associate Professor Dr. Kamaleshwar P. Singh to study how arsenic affects the kidneys. While further research is needed, the significance of these findings earned them a spot in the Journal of Cellular Physiology.

Katy Shaw Awarded 3rd place at SETAC



Katy Shaw was awarded 3rd place at SETAC North America's 39th Annual Meeting on best PhD platform at SETAC in Sacramento, California!

Katy's presentation was titled, "Concentrations and risks of metal contamination from lead shot in a Hawaiian green sea turtle (Chelonia mydas) foraging aggregation and their habitat".

3 Minute Thesis Competition Awards

Olushola Awoyemi, Cassandra Schmitt, and Armando Elizalde-Velazquez await the finals of the 3 Minute Thesis competition.

Competitors are judged on their ability to explain their research in three minutes or less to a non-specific audience using just one PowerPoint slide.

Cassandra Schmitt won 1st Place Overall.

Armando Elizalde-Velazquez won both the
Audience Choice Award & 3rd Place
Overall.

Olushola Awoyemi made it to the Finals.





Visiting Students

The Godard-Codding laboratory hosted doctoral student, Edgar Eduardo Becerril Garcia from the Centro Interdisciplinario de Ciencias Marinas in La Paz, Mexico. Edgar came to be trained in optimizing the steroid hormone analysis portion of his dissertation. While at TTU, he learned how to extract hormones from elasmobranch matrices, as well as molecular laboratory techniques.

Daniela Bernot Simon traveled to the Godard-Codding laboratory from the Universidad Autónoma de Baja California Sur, Mexico to conduct a portion of her master's thesis research which dealt with analytical chemistry. While here, she learned how to extract hormones from fin whale blubber. Her research will help scientists understand the reproductive cycle of an isolated population of fin whales in the Gulf of California.

Terracon Foundation Scholarship Recipients

Narayan Acharya, Cassie Henry, Fengqian Chen, Steve Lasee, Lucy Lim, Lihua Lou, Audrey Martinez, Michelle McManus, Cassandra Schmitt, Katy Shaw, and Weijie Yu



Adopt -A-Highway clean up

Katy Shaw, Armando Elizalde, Eric Peterson, Lihua Lou, Fenggian Chen, Audrey Martinez, Kiana Holbrook, Jessica Herzog, Kalin Skinner, Nicole Dennis, Narayan Archarya, and Shanoy Anderson participate as volunteers for the Adopt-A-Highway clean up.





Steve Lasse, Jessica Herzog, Kruuttika Satbhai, Armando Elizalde, Nataly Gómez, Lihua Lou, and Katy Shaw participated in the Pumpkin Carving contest at TIEHH.



Katy Shaw gave a presentation to the Hawaii Department of Health

Katy received a \$20,000 grant from the Hawaii Dept. of Health to study "Ecological effects of lead on green sea turtles in Kaimalino Place, HI".



Friends of the Library Kruuttika Satbhai, Armando Elizalde Velazguez, Alyssa Hay, Jessica Herzog (not pictured) participated as volunteers with the Friends of the Library at the Lubbock Public Library.



TIEHH and IFS students always have a great time relaxing and enjoying food, games, and making new friends during Texas Tech home football games.

Cassie Henry received the Graduate Student Research Support Award for 2018

Her research is studying using molecular techniques to identify intermediate hosts of the eyeworm, Oxyspirura petrowi, that is commonly found in northern bobwhite quail.

ENTX Faculty, Students and Alumni traveled to the 2018 National SETAC in Sacramento, CA

Students Who Received SETAC Travel Awards:

Cassie Henry, Christiana Wittmaack, Jocylin Pierro, Armando Elizalde-Velazguez, Naveen Kumar, and Olushola Awoyemi



New Students



Olukayode James Ayodeji, Ph.D.



Rachel Barnard M.S. (Forensic Science)



Annelisse Bell M.S. (Forensic Science)



Katie Blanar M.S. (Forensic Science)



Analicia Carcano M.S.



Yaireth Castro M.S. (Forensic Science)



Nicole Dennis M.S.



Kierstyn Evans M.S. (Forensic Science)



Kathryn Ganley M.S. (Forensic Science)



Nataly Gomez M.S. (Forensic Science)



Connor Harwood M.S. (Forensic Science)



Alyssa Hay M.S.



Jessica Herzog M.S.



Terrell Hilliard Ph.D.



Kiana Holbrook M.S. (Forensic Science)



Cady Mello JD/M.S.



Preston McCullough M.S. (Forensic Science)



Thy Nguyen M.S. (Forensic Science)



Maureen Oliva M.S. (Forensic Science)



Charles Oludare M.S.



Amanda Patrick
M.S. (Forensic Science)



Jennifer Raymer M.S. (Forensic Science)



Tyler Richardson M.S. (Forensic Science)



Kruuttika Satbhai Ph.D.



Madeline Scotch M.S. (Forensic Science)



Kundan Shah M.S.



Kalin Skinner Ph.D.



Audrey Willis M.S.



Summer Graduates



Ryan Cleary, M.S.



Brittanie Dabney, M.S.



Carmen Emborski, Ph.D.



Katie Haydett, M.S.



Kia Hayes, M.S.



Zhongwei Liu, Ph.D.



Steve Peper, Ph.D.



Eric Peterson, M.S.



Will Thompson, M.S.

Volunteers cook once again!



During the October 2018 Texas Education Agency Region 17 Special Education Field Day, Department of Environmental Toxicology employees Ryan Bounds and Jerry Cowen volunteered their time to cook almost 600

hamburgers for the participating students and teachers. The meat was provided by local businesses. This is the second consecutive year that they have donated their time to support this worthy program, cooking almost 1100 hot dogs for the event last year. Thank you to Ryan and Jerry for supporting our local community in such a great way.

Staff News

Staff Member of the Semester



Ryan BoundsAssistant Director for Administration

Congratulations!!

New Employee



Welcome *Julie Wheeler*, new Administrative Assistant to the Chair.

New Research Staff



Dr. Steve Peper transitioned from a PhD to a Post Doc in Dr. Presley's lab continuing research on mosquitos.

Steve Peper placed second at the first Texas Mosquito Control Association Student Oral Competition.



He and his wife Kelly welcomed a baby boy in July as well.

Bianca Rendon is a Research Associate in Dr. Presley's lab.

A Fond Farewell

Stephanie Presley accepted an offer with a private company and has moved on from ENTX. Over the past decade, she has done an outstanding job with the safety and inventory program in our department. She has been a huge asset to our department and will be missed.



External Research Project Funding Accomplishments!

Congratulations to the ENTX faculty members who have been awarded external research project funding as the Principal Investigator during 2018:

- Dr. Céline A. Godard-Codding was awarded \$301,000 from the ExxonMobil Foundation for the project entitled Western Gray Whale Biopsy Sample Analysis Program.
- Dr. Steve Presley was awarded \$143,238 from the National Institute of Allergy and Infectious Diseases for the project entitled Development of a Universal Influenza Vaccine Against Influenza A and B Viruses.
- Dr. Ron Kendall was awarded \$200,000 from the Rolling Plains Quail Research Foundation for the project entitled *Anthelmintic Drug Treatment and Field Surveillance for Northern Bobwhite Quail (Colinus virginianus)* Infected with Parasites.
- Dr. David Klein was awarded \$100,000 from the U.S. Environmental Protection Agency for the project entitled State Indoor Radon.
- Dr. Steve Presley was awarded \$200,798 from the U.S. Centers for Disease Control and Prevention and the Texas Department of State Health Services for the project entitled *Testing of High consequence infectious diseases*.
- Dr. Steve Presley was awarded \$72,000 from U.S. Centers for Disease Control and Prevention and Texas Department of State Health Services for the project entitled *Enhanced ZIKA Diagnostic Throughput Capacity*.
- Dr. David Klein was awarded \$20,580 from the U.S. Environmental Protection Agency and Hawaii State Department of Health for the project entitled *Ecological Effects of Metal Contamination from Lead*.
- Dr. Seshadri Ramkumar was awarded \$25,000 from Cotton Incorporated for the project entitled *Exploring New Opportunities for Low Micronaire Cotton*.
- Dr. Steve Presley was awarded \$192,000 from the Texas Department of State Health Services for the project entitled *Insecticide* resistance testing of Texas Aedes aegypti and Aedes albopictus populations.
- Dr. Seshadri Ramkumar was awarded \$7,500 from Cotton Incorporated for the project entitled *New Markets for Low Micronaire Cottons*.
- Dr. Seshadri Ramkumar was awarded \$10,000 from Cotton Incorporated for the project entitled Environmentally Friendly Processing
 of Cotton for Value Added Products.

Alumni News



LE-SETAC Seminar Series

LE-SETAC's guest speaker this year was **Dr. John Brausch**. His seminar was titled "An industry/academia collaboration to identify real world amphibian risk to a plant protection product".

Dr. John Brausch is a 2009 Ph.D. graduate of The Institute of the Environmental and Human Health. He has held a variety of ecotoxicology positions and is currently a Regulatory Product Specialist at BASF Corporation.

Alumni Scholarship Recipients

Olukayode James Ayodeji, Analicia Carcano, Nicole Dennis, Terrell Hilliard, Cady Mello, Charles Oludare, Kruuttika Satbhai, Kundan Shah, and Kalin Skinner



A note from the Chair ...

Beautiful west Texas Fall greetings to our alumni, colleagues and friends,

As you have likely noticed from the preceding pages of this newsletter, our students, staff and faculty have been very busy and successful this semester striving towards the ENTX vision – "... be a leader in research and education, integrating environmental and human health sciences. Our department will contribute innovative solutions to environmental problems by embracing disciplinary diversity, creating partnerships and committing to excellence".

ENTX students and faculty have been widely recognized for their research and scholarly contributions, receiving awards and professional accolades at the university, regional, national, and international levels. One of the key metrics of the success of a department is the amount of external funding that is received by its



faculty for research. During 2018 more than 29 research funding proposals were submitted by ENTX faculty through the department. I want to again congratulate those faculty members that were successful in their efforts to receive external research funding during 2018, their efforts resulted in a total of more than \$1,272,000. These significant and well-deserved awards and scholarly achievements also reflect the dedicated support and encouragement provided by the outstanding ENTX staff – thank you.

To help enhance the opportunities for ENTX students to travel to professional meetings and enable the department to reward their academic and scholarly accomplishments, your financial donation to the Alumni Scholarship Fund would be very much appreciated. If you would like to donate please write your check to "Texas Tech University" and mail it to Department of Environmental Toxicology (Attn: Tami James), Box 41163, Lubbock, TX 79409-1163.

Warmest wishes to you and yours for a happy and relaxing Holiday Season.

Steve Presley, Ph.D. Professor and Chair

Department of Environmental Toxicology TTU College of Arts & Sciences

Newsletter compiled, produced and published by Julie Wheeler, Lori Gibler, and Brad Thomas

VISION STATEMENT

"We will be a leader in research and education integrating environmental and human health sciences. Our department and institutes will contribute innovative solutions to environmental problems by embracing disciplinary diversity, creating partnerships and committing to excellence."



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